

# When Team Conflicts Threaten Quality of Care: A Study of Health Care Professionals' Experiences and Perceptions

Stéphane Cullati, PhD; Naike Bochatay, PhD; Fabienne Maître, Msc; Thierry Laroche, MSC; Virginie Muller-Juge, MSC; Katherine S. Blondon, MD; Noëlle Junod Perron, MD; Nadia M. Bajwa, MD; Nu Viet Vu, PhD; Sara Kim, PhD; Georges L. Savoldelli, MD; Patricia Hudelson, PhD; Pierre Chopard, MD; and Mathieu R. Nendaz, MD

# Abstract

**Objectives:** To explore professionals' experiences and perceptions of whether, how, and what types of conflicts affected the quality of patient care.

**Patients and Methods:** We conducted 82 semistructured interviews with randomly selected health care professionals in a Swiss teaching hospital (October 2014 and March 2016). Participants related stories of team conflicts (intra-/interprofessional, among protagonists at the same or different hierarchical levels) and the perceived consequences for patient care. We analyzed quality of care using the dimensions of care proposed by the Institute of Medicine Committee on Quality of Health Care in America (safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity).

**Results:** Seventy-seven of 130 conflicts had no perceived consequences for patient care. Of the 53 conflicts (41%) with potential perceived consequences, the most common were care not provided in a timely manner to patients (delays, longer hospitalization), care not being patient-centered, and less efficient care. Intraprofessional conflicts were linked with less patient-centered care, whereas interprofessional conflicts were linked with less timely care. Conflicts among protagonists at the same hierarchical level were linked with less timely care and less patient-centered care. In some situations, perceived unsatisfactory quality of care generated team conflicts.

**Conclusion:** Based on participants' assessments, 4 of 10 conflict stories had potential consequences for the quality of patient care. The most common consequences were failure to provide timely, patient-centered, and efficient care. Management of hospitals should consider team conflicts as a potential threat to quality of care and support conflict management programs.

© 2019 THE AUTHORS. Published by Elsevier Inc on behalf of Mayo Foundation for Medical Education and Research. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/) 

Mayo Clin Proc Inn Qual Out 2019;3(1):43-51

orkplace conflicts among professionals are frequent in health care. A majority of health care professionals has witnessed disruptive behaviors or perceived conflicts on a weekly basis. In the United States, 20% of residents reported serious conflicts with other staff members, and 43% of surgeons reported experiencing conflicts about postoperative goals of care with intensivists either sometimes or always.

Conflicts within teams can involve harsh language (threats, yelling, profanity), blaming,

breakdown in communication, or disruptive conduct.<sup>6,7</sup> Whereas team conflicts may be viewed constructively when used to clarify misunderstandings and disagreements about roles and tasks,<sup>8,9</sup> they can alter team dynamics and communication, decrease trust and team performance,<sup>10,11</sup> and lead to poor mental health among professionals.<sup>12-14</sup> Team conflicts may draw health care professionals' attention away from patient care and drain their personal resources,<sup>3,6,15,16</sup> posing a threat to the team safety climate<sup>17</sup> and, ultimately, the quality of patient care.<sup>4,18</sup>

From Quality of Care Service, University Hospitals of Geneva, Switzerland (S.C., P.C.); Department of General Internal Medicine, Rehabilitation and Geriatrics, University of Geneva, Switzerland (S.C., P.C.); Institute of Sociological Research, University of Geneva, Switzerland (S.C., N.B.); Unit of Development and Research in Medical Education,

Affiliations continued at the end of this article.

qualitative studies specifically analyzed the consequences of conflicts for patient care. 19,20 The study of Walrath et al used focus groups to explore disruptive behaviors observed or experienced by 96 registered nurses in an acute care hospital in the Northeastern United States. The authors noted that disruptive behaviors affected the nurses, the nurses' practice settings, and the patients. The impact on patient care could take 2 forms: first, nurses could be distracted from patient care; second, the patient could become the witness of disruptive behaviors from health care professionals. Nurses also expressed the general concern that disruptive behaviors could decrease the quality of care and create risks to patient safety. 19 The study of Aberese-Ako et al used ethnographic methods to explore the influence of conflicts among health care professionals working in the departments of obstetrics and gynecology of a referral hospital in Ghana. They found that team conflicts could affect quality of care in 2 ways: directly (delays in provision of health care, not providing "essential care" to patients) and indirectly (health care professionals feeling demotivated and exhibiting negative attitudes toward patients). The authors also found that conflicts may have positive effects on quality of care, by preventing "medical complacency and negligence."20 However, these studies had 2 main limitations. First, they mainly discussed the consequences of conflicts for patients care by considering quality as a general concept. Quality of care is, however, not a single dimension, 21 and which of the multifaceted nature of quality of care (safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity)<sup>22</sup> are affected by team conflicts remains, until now, an unexplored area.

Second, these studies focused on team conflicts in general, disregarding the fact that conflicts are not similar in their form.<sup>23</sup> For example, team conflicts differ depending on whether the protagonists (the health care professionals involved in a conflict) belong to the same profession or not.<sup>24</sup> Interprofessionality of care can lead to team conflict as a result of areas of overlapping competencies and shared responsibilities, <sup>25,26</sup> such as when determining the goals of care.<sup>5</sup> Interprofessional conflicts may affect the safety climate<sup>17</sup>

and lead to medical errors. Team conflicts also differ in their form when involving protagonists within a professional group but with different statuses (nurse vs nurse manager, resident vs chief resident, etc). In acute care hospitals, hierarchy is often inherent to medical and clinical decision making and health care professional cultures have fostered a hierarchical power structure that is now challenged by the interprofessional processes of patient care. Ew studies have looked at the interplay between hierarchical differences and conflicts. We therefore know little about how it might affect aspects of quality of care.

Given this gap in the literature, the objective of this study was to explore health care professionals' experiences of team conflicts and their perceptions of whether and how conflicts affected the multifaceted quality of patient care. We also sought to understand whether different forms of conflicts (intraprofessional vs interprofessional and same vs different levels of hierarchy) might affect different aspects of quality of care.

#### **METHODS**

# **Design and Setting**

This study reports on a large-scale qualitative research project on health care professionals' experiences of team conflicts. The study was conducted at the University Hospitals of Geneva, Switzerland, a 1700-bed tertiary care hospital. The study was approved by the Regional Research Ethics Committee of Geneva. Given the sensitivity of the topic, chief medical officers and chairs of the departments involved in the study independently reviewed and approved the project.

## Recruitment and Interviews

Between October 2014, and March 2016, we invited a randomly selected sample of professionals involved in first-line patient care to participate in a semistructured interview: residents, chief residents, certified nursing assistants, nurses, and nurse supervisors. We did not include attending physicians because they represent second-line physicians in the process of care at our hospital, whereas chief residents are involved in direct supervision. We selected participants from 4 clinical departments with different levels of acuity, types

of patients, and work organization to have a range of experiences (internal medicine, family medicine, pediatrics, and 2 surgical units). An approximately equal number of physicians and nurses were invited from each department. Four social scientists conducted the interviews (N.Bo., V.M.J., P.H., S.C.). Two of these scientists worked at the University of Geneva, and 2 worked at the University Hospitals of Geneva; none was involved with the participants' hospital department.

After accepting to participate in the study, each participant received a written description of the research project, with instructions to think about conflict stories they had experienced or witnessed with coworkers. The definition of conflict stories was left up to the participants. The interview guide, available elsewhere, <sup>23</sup> was informed by a previous study on professional conflicts in health care.<sup>30</sup> During the interviews, participants were invited to recount 1 or more conflict stories. We also asked about the sources, consequences, and responses to conflicts. At the beginning of the interview, we gave participants time to sign consent forms and to ask questions. Participants could withdraw from the study at any time; we also gave them the opportunity to read and request removal of any content from their interview transcript. Average duration of interviews was 38 minutes (minimum 23, maximum 69).

### **Analysis**

Interviews were audio-taped, transcribed verbatim, and anonymized. Transcripts were analyzed using a thematic approach.<sup>31</sup> All authors read 6 interviews to familiarize themselves with the interviews, discussed codes that were derived from the data, and developed an initial list of codes. This list of codes was inductively grounded in the data and deductively derived from the literature on work conflicts. 15,32,33 The codes were then tested on a sample of 15 interviews and refined. For each conflict story, we coded protagonists' characteristics (gender, professional group and status, specialty) and the form of the conflict story (intraprofessional vs interprofessional conflict, hierarchical differences among professionals involved in the conflict, and whether or not the conflicts had been solved). Hierarchical levels (same vs different) were defined based on whether protagonists

had, or not had, a management role in our hospital such as nurse manager (vs nurse and certified nurse) or chief resident (vs resident). Although we had not specifically prompted participants to talk about interprofessionality and professional hierarchies, these were spontaneously mentioned in their conflict stories, and therefore we included these dimensions in our analyses. All data were then coded (N.Bo.) using Atlas.ti Scientific Software Development (version 7.5).

Potential consequences of conflict stories for patient care were based on what participants reported. In the interview guide, 1 questioner asked: "What were the consequences of this situation?" We selected conflict situations in which participants reported consequences for patient care and analyzed these responses using the 6 dimensions of quality of care defined by the Institute of Medicine Committe on Quality of Health Care in America: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity. 10 We adapted the 6 attributes and their definitions for this study (Table 1). Two of the interviewers (N.Bo., S.C.) independently coded the reported consequences of conflict stories for patient care, assigning either 1 or several dimensions of quality of care to each situation. They then met to compare their coding and reach a consensus in case of discrepancy. When more than 1 quality-of-care dimension was coded in a conflict story, we distinguished between the primary dimension and secondary dimensions. The primary dimension was the main consequence in participants' discourses, and secondary dimensions were less important. The current analyse focused on the primary dimension. Two nurse supervisors and 2 physicians (F.M., T.L., P.C., M.N.) reviewed all coded data. Discrepancies were solved by consensus.

## **RESULTS**

# Characteristics of Health Care Professionals and of Team Conflict Stories

A total of 82 semistructured interviews with health care professionals (participants' characteristics are reported in Table 2) provided 130 team conflict stories. Of the 82 interviewees, 41 shared 1 story, 34 shared 2 stories, and 7 shared 3 stories. Seventy-five percent (98 of 130) of conflicts stories were experienced first-hand, whereas others were

Dimension	Characteristics		
Safety	"First do no harm" (individual caregiver responsibility and property of the system).		
Effectiveness	Neither underuse nor overuse the best available techniques, treatment, or care.		
Patient-centeredness	Be attentive to patient's culture, social context, and specific needs, encourage patient participation in decision making, and avoid patient witnessing conflicts between professionals.		
Timeliness	Minimize delays in patient care.		
Efficiency	Minimize the waste of supplies, equipment, space, ideas, and opportunities.		
Equity	Ensure high-quality care for all patients, regardless of their gender, ethnicity, income, social support, social life and unhealthy health behaviors.		

witnessed; 84% (109 of 130) referred to specific situations, whereas 16% (21 of 130) were generic situations; 67% (87 of 130) involved protagonists at the same level of hierarchy, and 33% (43/130) involved different levels of hierarchy among protagonists. Fifty-seven percent (74 of 130) involved intraprofessional conflicts, whereas 43% (56 of 130) were interprofessional.

# Consequences of Conflict Stories on Quality of Care

Health care professionals were asked about the consequences of conflict stories they reported.

TABLE 2. Characteristics of the 8 Professionals	2 Health Care
Characteristics	
Age: Mean (range)	41 (29-62)
Sex (Women:Men)	50:32
Profession Certified Nursing Assistant Nurse Nurse Manager Resident Chief Resident	6 (7.3%) 27 (32.9%) 6 (7.3%) 22 (26.8%) 21 (25.6%)
Clinical Department Pediatrics Surgical Units Internal Medicine Family Medicine	21 (25.6%) 21 (25.6%) 20 (24.4%) 20 (24.4%)
Number of years of experience: median (range)	11 (1-35)
Country of education until diploma (Switzerland:Other)	36:46

Based on their assessment, 59% (77 of 130) of team conflict stories had no consequences for patient care and 41% (53 of 130) had potential consequences for patient care.

We categorized these consequences into the 6 dimensions of quality of care: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity (Table 3). Among the 53 conflict stories that involved potential consequences for patient care, 28 (53%) had a single consequence on quality of care (1 quality dimension), whereas 25 (47%) had multiple consequences (several quality dimensions). Among conflict stories with multiple consequences, we distinguished the primary (reported above and in Table 4, column A) and other consequences. We reported the primary consequence in order of frequency (highest to lowest). The main dimension involved in conflict stories was care not being provided in a timely manner (34% of the 53 stories that had consequences for patient care): participants reported delays in providing medical treatment or performing surgical interventions.

We try to provide good patient care, we don't want to do anything that could harm patients; that's obvious. If I think of my family, I wouldn't want anyone to be anesthetised longer just because the surgeon is poorly organized. So, even if I don't know our patients, I don't think they should just be lying down in the OR for no reason.

(Nurse, Surgical Units)

Lack of patient-centeredness was the second most mentioned consequence for care

Quality Dimensions <sup>a</sup>	Illustrative Quotes			
Timeliness	The patient had been feeling worse for a couple of days, so if we had been able to better discuss the case, we might hav been able to take him to the OR a day earlier. (Resident, Pediatrics)  There are delays because I need to look for nurses, I need to wait for them to be available to come with me, so it's not alway easy. (Certified Nursing Assistant, Pediatrics)			
Patient-centeredness	I clearly wasn't feeling very calm when I went to see the patients right after the conflict occurred. I should have had a break talk it through with my coworkers instead of going straight to see my patients as if nothing had happened. (Nurse, Fami Medicine)  It was very difficult for us to work with that intern, and once she became aggressive with one of our patient's wives. The wirdid not speak French, but the intern talked to her in French, rather violently, and she made the wife cry. (Nurse Supervise Internal Medicine)			
Efficiency	When I'm on call in this specialty, I have to round to see my patients, and I'm on call at the same time. So if I get paged, I have to leave, go check what's going on, and come back, which creates discontinuities in my rounds. (Resident, Pediatrics) We can't work well. In fact, the work we do is pretty poor because of working conditions that just aren't adapted to our situation here. (Chief Resident, Pediatrics)			
Effectiveness	For that situation, I'm convinced that patient care was suboptimal. We should have given adrenaline to our patient. But I gues the resident was stressed [because of two chief residents] before he even started taking care of the patient, which contributed to suboptimal patient care. (Chief Resident, Surgical Units)			
Safety	It was entirely our fault if this patient had a completely abnormal cardiac rhythm. Our care had been iatrogenic; she had few comorbidities. (Resident, Internal Medicine)  The surgeon wasn't listening to us, and it got really stressful because we could hear the patient's cardiac rhythm slowing do on the monitor; we got scared. (Nurse, Surgical Units)			
Equity	I asked the respiratory therapist to come remove the patient's secretions. My patient was in the ICU and it was an end-of-lif situation. I wanted my patient to be comfortable, but the RT refused to come because he didn't see the point of it with dying patient. (Nurse, Pediatrics, talking about when she worked in an adult ICU)			

(30% of the situations): Teams did not fully meet patient and family needs; they failed to listen to patient requests because they were distracted by conflicts.

Of course, it affected patients! I work night shifts, and as I got to work one evening, people told me that the schedule for the Christmas break was up. I checked it, and it drove me mad. I was in for a bad night, and obviously all the patients had bad nights, too. (...) I was really upset, so I was less available for my patients. I was not able to focus on their needs as much as usual.

(Nurse, Internal Medicine)

The third most mentioned consequence was a lack of efficiency (25%). Teams did not communicate in an optimal way, resulting in a loss of information, counter-orders, and a lack of consistency in decisions, team disorganization, and deteriorated communication regarding medical orders.

We keep having to look for nurses when we have questions about our patients, and when we ask someone, they always say: "Oh, she just left to go get lunch." "Okay, so who is in charge of her patients while she's away?" "Well, I don't know." So we waste a huge amount of time.

(Resident, Pediatrics)

The other 3 dimensions were less frequently mentioned in our interviews (see quotes in Table 3). Less effective care (3 conflict stories) was related to surgical interventions performed by inexperienced and unsupervised surgeons or failure to use best available techniques. In terms of safety (2 conflict stories), participants described environments in which errors had occurred (or were more likely to occur) because of conflicts. Finally, lack of equitable care (1 conflict story) was mentioned in an end-of-life situation. Because of the patient's state, a respiratory therapist refused to perform what had been asked to alledgely make the patient more comfortable.

TABLE 4. Frequency of Quality Dimensions Involved in 53 Team Conflict Stories <sup>a</sup>									
		Forms of Team Conflict							
	All	Intra-professional	Inter-professional	Same Level of Hierarchy	Different Levels of Hierarchy				
	А	В		С					
Quality Dimensions <sup>b</sup>	N (%)	N (%)	N (%)	N (%)	N (%)				
Timeliness	18 (34%)	7 (39%)	II (6I%)	14 (78%)	4 (22%)				
Patient-centeredness	16 (30%)	10 (63%)	6 (38%)	11 (69%)	5 (31%)				
Efficiency	13 (25%)	7 (54%)	6 (46%)	8 (62%)	5 (39%)				
Effectiveness	3 (6%)	2 (67%)	I (33%)	2 (67%)	I (33%)				
Safety	2 (4%)	I (50%)	I (50%)	I (50%)	I (50%)				
Equity	I (2%)	-	I (I00%)	I (I00%)	-				

<sup>a</sup>Primary consequence of the conflict on patient care.

Of note, during the interviews, some participants reported difficulty in assessing whether the conflict story had had consequences for the patient:

I do not think this conflict changed anything in the patient's care, but it's hard to say. Yeah, I would say that we probably managed to keep it among ourselves without affecting our patient.

(Resident, Internal Medicine)

# Forms of Team Conflicts and Quality of Patient Care

Distribution of conflict stories across the 2 forms of conflicts (intraprofessional vs interprofessional conflict, same vs different levels of hierarchy) is reported in Table 5. Distribution of consequences for quality of care with respect to these 2 forms of conflicts is provided in Table 4.

Timeliness and patient-centredness consequences differed by form of conflicts (Table 4, columns B and C). Timeliness consequences were mostly linked with interprofessional conflicts (61%) and with conflicts among protagonists at the same level of hierarchy (78%): patient-centeredness consequences with intraprofessional conflicts (63%) and with conflicts among protagonists having the same hierarchical level (69%).

Efficiency consequences were linked with conflicts among protagonists at the same level of hierarchy (62%) and were roughly similar between intraprofessional vs interprofessional conflicts (54% and 46%, respectively).

Effectiveness, safety, and equity of care consequences also differed by form of conflicts; however, sample sizes across strata were too small to draw conclusions.

## DISCUSSION

Through interviews with a random sample of physicians, nurses, and certified nursing assistants working at a teaching hospital, we have examined whether and how team conflicts could affect quality of patient care. Our study illustrates how conflicts among health care professionals are not circumscribed in teams and may lead to suboptimal patient care. This result is in line with previous studies 19,20; however, our study goes further by identifying which aspects of quality of care were affected by team conflicts. We used the framework of the Institute of Medicine Committee on Quality of Health Care in America as a template to go beyond general statements about quality of care. 10 The most common consequences were failure to provide care in both a timely and a patient-centered manner and less efficient care. This finding is comforting, as it suggests that when team conflicts spill over to patient care, safety may be affected only rarely. Nevertheless, our results suggest that team conflicts are detrimental to patient-centeredness. This result echoes an ethnographic study of morning interprofessional rounds in intensive care, which showed that conflicts prevented teams from involving patients in their own care.<sup>34</sup>

Our study assessed whether forms of team conflicts can be linked with different

blnstitute of Medicine Committee on Quality of Health Care in America. Crossing the Quality Chasm. Washington, DC: National Academies Press; 2001.

dimensions of quality of care. We observed that intraprofessional conflicts were linked with impaired patient-centered care and that interprofessional conflicts were related with more delays. These results are new and would need further—in particular, quantitative— studies to better understand these phenomenons and to determine the impact of these problems. However, they may help attending physicians, nurse managers, and quality management programs identifying the domains in which quality of patient care may be threatened by team conflicts and implement appropriate countermeasures more efficiently.

How can we explain the effect of team conflicts on quality of patient care? The provision of safe patient care rests on good clinical knowledge but also on good communication and collaboration skills. More specifically, effective collaborative practice and teamwork represent cornerstones for high quality of care. <sup>35-38</sup> However, conflicts can lead health care professionals to exhibiting poor collaborative attitudes. <sup>20</sup> Failure to communicate within a team may mean that decisions for patient care are made in isolation and do not include all team members' perspectives on patients. <sup>39</sup>

Finally, based on participants' assessments of 130 conflicts stories, we showed that more than 4 of 10 (41%) team conflicts stories had potential consequences for quality of care. To our knowledge, this is the first study to document the proportion of team conflicts potentially affecting quality of patient care. Two caveats must, however, be emphasized: First, the observed proportion (4 of 10) is indicative and should be confirmed by quantitative observational studies based on larger sample sizes; second, because consequences for patient care were based on participants' perceptions, we cannot assess the true impact of these conflict stories, and thus we prefer to speak of potential consequences, possibilities of something affecting patient care.

Taking the above into account, we can say that a non-negligible proportion of team conflict stories was perceived by professionals to have potentially negative consequences on patient quality of care. It is possible that this proportion may have been underestimated in our study; indeed, during interviews, some participants had difficulty assessing the

TABLE 5. Forms of Team Conflict Stories With and Without Consequences for Patient Care 77 Conflict Stories 53 Conflict Stories With Consequences With No Consequences for Patient Care for Patient Care N (%) N (%) Forms Intra-/Interprofessional 27 (50.9) Intraprofessional 47 (61.0) 26 (49.1) 30 (39.0) Interprofessional Hierarchical levels Same level 37 (69.8) 50 (64.9) Different levels 16 (30.2) 27 (35.1)

consequences of team conflict on patient care. While waiting for more studies on this topic, our results led us to believe that when addressing team conflicts, patient care should be taken into consideration and that quality management of acute care hospitals should consider team conflicts as a potential threat for the quality of patient care. Improvement programs may need to strengthen health care professionals' ability to identify and respond to team conflicts.

## **LIMITATIONS**

This study has several limitations. First, the data-collection technique (semistructured interviews) may have favored information bias, and we did not triangulate data from interviews with field observations or hospital records. Second, team conflict stories were selected using participants' self-assessment, allowing selection bias in identifying conflicts stories. Third, during interviews, some participants had difficulties evaluating whether and how conflicts had affected patient care; even if interviewers helped participants identifying these consequences, we may have missed some patient-care consequences. Fourth, we interviewed a limited number of health care professions. Integrating additional profes-(midwives, physiotherapists, example) may enrich our description of team conflict stories, but we cannot assert whether it would enrich the description of consequences of team conflict on patient care. Fifth, based on participants' discourses, it was not always entirely clear whether quality of care was the consequence or the cause of conflict stories. Some participants

referred to the chicken-and-egg conundrum to describe how distinguishing what had started a conflict from its consequences could be tricky, as unaddressed conflicts can lead to further tensions.<sup>23</sup> Despite multiple reviews of these ambiguous situations by all coauthors, we cannot avoid the possibility that some conflicts stories may have been misclassified as cause of impaired quality of care or as cause of team conflict.

Despite these limitations, we feel confident in the robustness of our results. We conducted a significant number of interviews in different clinical settings, increasing confidence in our capacity to capture sufficient heterogeneity in conflict stories. Random sampling allowed a smooth recruitment of participants, avoiding participants' concerns with the reasons of their selection for the study. Finally, interviews were conducted by social scientists to minimize barriers related to peer interviewing.

### CONCLUSION

In a tertiary hospital, conflicts among health care professionals can potentially affect patient care. When team conflicts have consequences for patient care, they mostly influence timeliness, patient-centeredness, and efficiency. Quality managers of care hospitals should consider team conflicts as potential barriers to quality care. Quality management should consider preventive actions and support programs for management of conflicts.

# **ACKNOWLEDGMENTS**

The authors wish to thank all participants who agreed to share their stories and experiences as well as the heads of departments who supported this project. They also extend their gratitude to Ms. Nuria Scherly for her transcription work.

Affiliations (Continued from the first page of this article.): University of Geneva, Switzerland (N.B., V.M.J., N.J.P., N.M.B., N.V.V., G.L.S., M.R.N.); Division of General Internal Medicine, University Hospitals of Geneva, Switzerland (F.M., K.S.B., M.R.N.); Division of Anaesthesiology, University Hospitals of Geneva, Switzerland (T.L., G.L.S.); Interprofessional Simulation Centre, University of Geneva, Switzerland (K.S.B.); Department of Community Medicine, Primary and Emergency Care, University Hospitals of Geneva, Switzerland (N.J.P., P.H.); Department of General Paediatrics, University Hospitals of Geneva, Switzerland (N.M.B.);

and Department of Surgery, University of Washington, Seattle (S.K.).

**Grant Support:** This study was funded in part by funds from the University of Geneva.

Potential Competing Interests: The authors report no competing interests.

Publication dates: Received for publication August 22, 2018; revisions received November 21, 2018; accepted for publication November 30, 2018.

Correspondence: Address to Stéphane Cullati, PhD, Quality of Care Service, University Hospitals of Geneva, Rue Gabrielle-Perret-Gentil 4, 1211 Geneva, Switzerland (stephane.cullati@hcuge.ch).

### **REFERENCES**

- Rosenstein AH, O'Daniel M. A survey of the impact of disruptive behaviors and communication defects on patient safety. Jt Comm | Qual Patient Saf. 2008;34(8):464-471.
- Fassier T, Azoulay E. Conflicts and communication gaps in the intensive care unit. Curr Opin Crit Care. 2010;16(6):654-665.
- Azoulay E, Timsit JF, Sprung CL, et al. Prevalence and factors of intensive care unit conflicts: the conflicus study. Am J Respir Crit Care Med. 2009;180(9):853-860.
- Baldwin DC Jr, Daugherty SR. Interprofessional conflict and medical errors: results of a national multi-specialty survey of hospital residents in the US. J Interprof Care. 2008;22(6): 573-586.
- Olson PTJ, Brasel KJ, Redmann AJ, Alexander GC, Schwarze ML. Surgeon-reported conflict with intensivists about postoperative goals of care. JAMA Surg. 2013;148(1):29-35.
- Rogers D, Lingard L, Boehler ML, et al. Teaching operating room conflict management to surgeons: clarifying the optimal approach. Med Educ. 2011;45(9):939-945.
- Musselman LJ, MacRae HM, Reznick RK, Lingard LA. You learn better under the gun: intimidation and harassment in surgical education. Med Educ. 2005;39(9):926-934.
- Jehn KA. Enhancing effectiveness: an investigation of advantages and disadvantages of value-based intragroup conflict. Int J Conflict Manag. 1994;5(3):223-238.
- Tekleab AG, Quigley NR, Tesluk PE. A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. Group Organ Manag. 2009;34(2):170-205.
- Institute of Medicine (US) Committee on Quality of Health Care in America. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academies Press: 2001.
- Kim S, Bochatay N, Relyea-Chew A, et al. Individual, interpersonal, and organisational factors of healthcare conflict: a scoping review. J Interprof Care. 2017;31(3):282-290.
- Wing T, Regan S, Spence Laschinger HK. The influence of empowerment and incivility on the mental health of new graduate nurses. J Nurs Manag. 2015;23(5):632-643.
- Laschinger HK, Grau AL, Finegan J, Wilk P. New graduate nurses' experiences of bullying and burnout in hospital settings. J Adv Nurs. 2010;66(12):2732-2742.
- 14. Shanafelt T, Dyrbye L. Oncologist burnout: causes, consequences, and responses. J Clin Oncol. 2012;30(11):1235-1241.
- **15.** de Wit FR, Greer LL, Jehn KA. The paradox of intragroup conflict: a meta-analysis. *J Appl Psychol.* 2012;97(2):360-390.
- Luta X, Panczak R, Maessen M, et al. Dying among older adults in Switzerland: who dies in hospital, who dies in a nursing home? BMC Palliat Care. 2016;15(1):83.

- Manojlovich M, Kerr M, Davies B, Squires J, Mallick R, Rodger GL. Achieving a climate for patient safety by focusing on relationships. Int J Qual Health Care. 2014;26(6):579-584.
- Croskerry P, Abbass AA, Wu AW. How doctors feel: affective issues in patients' safety. *Lancet*. 2008;372(9645):1205-1206.
- Walrath JM, Dang D, Nyberg D. Hospital RNs' experiences with disruptive behavior: a qualitative study. J Nurs Care Qual. 2010;25(2):105-116.
- Aberese-Ako M, Agyepong IA, Genrits T, Van Dijk H. "I used to fight with them, but now I Have Stopped!": conflict and doctornurse-anaesthetists' motivation in maternal and neonatal care provision in a specialist referral hospital. PLoS One. 2015; 10(8):e0135129.
- **21.** Maxwell RJ. Quality assessment in health. *BMJ.* 1984;288(6428): 1470-1472.
- 22. US Committee on Quality of Health Care in America. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: Institute of Medicine; 2001.
- Bochatay N, Bajwa NM, Cullati S, et al. A multi-level analysis of sources and consequences of professional conflicts in healthcare: insights for future training. Acad Med. 2017;92:S84-S92.
- Apesoa-Varano EC. Interprofessional conflict and repair: a study of boundary work in the hospital. Sociological Perspectives. 2013;56(3):327-349.
- Hall P. Interprofessional teamwork: professional cultures as barriers. J Interprof Care. 2005;19(supp1):188-196.
- Muller-Juge V, Cullati S, Blondon KS, et al. Interprofessional collaboration on an internal medicine ward: role perceptions and expectations among nurses and residents. PLoS One. 2013;8(2):e57570.
- Liberati EG, Gorli M, Scaratti G. Invisible walls within multidisciplinary teams: disciplinary boundaries and their effects on integrated care. Soc Sci Med. 2016;150:31-39.
- WHO. Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: World Health Organization; 2010. Available at: http://www.who.int/hrh/resources/ framework\_action/en/.
- Paradis E, Whitehead CR. Louder than words: power and conflict in interprofessional education articles, 1954–2013. Med Educ. 2015;49(4):399-407.

- Kim S, Buttrick E, Bohannon I, Fehr R, Frans E, Shannon SE. Conflict narratives from the health care frontline: a conceptual model. Conflict Resolution Q. 2016;33(3):255-277.
- Terry G, Hayfield N, Clarke V, Braun V. Thematic analysis. In: Willig C, Rogers WS, eds. The SAGE Handbook of Qualitative Research in Psychology. London: SAGE Publications Ltd; 2017: 17-36
- Greer LL, Saygi O, Aaldering H, de Dreu CKW. Conflict in medical teams: opportunity or danger? Med Educ. 2012; 46(10):935-942.
- Guller U, Warschkow R, Ackermann CJ, Schmied B, Cerny T, Ess S. Lower hospital volume is associated with higher mortality after oesophageal, gastric, pancreatic and rectal cancer resection. Swiss Med Weekly. 2017;147: w14473.
- Paradis E, Leslie M, Gropper MA. Interprofessional rhetoric and operational realities: an ethnographic study of rounds in four intensive care units. Adv Health Sci Educ Theory Pract. 2016; 21(4):735-748.
- Interprofessional Education Collaborative Expert Panel. Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel. Washington, DC: Interprofessional Education Collaborative; 2012.
- Panczak R, Luta X, Maessen M, et al. Regional Variation of cost of care in the last 12 months of life in Switzerland: small-area analysis using insurance claims data. Med Care. 2017;55(2): 155-163.
- Zwarenstein M, Goldman J, Reeves S. Interprofessional collaboration: effects of practice-based interventions on professional practice and healthcare outcomes. *Cochrane Database Syst Rev.* 2009;3:CD000072.
- Muller-Juge V, Cullati S, Blondon KS, et al. Interprofessional collaboration between residents and nurses in general internal medicine: a qualitative study on behaviours enhancing teamwork quality. PLoS One. 2014;9(4):e96160.
- 39. Zwarenstein M, Rice K, Gotlib-Conn L, Kenaszchuk C, Reeves S. Disengaged: a qualitative study of communication and collaboration between physicians and other professions on general internal medicine wards. BMC Health Serv Res. 2013;13(1):494.